

CLAIMS

[1] A method for utilizing recovered magnesium ammonium phosphate, characterized by adding the recovered magnesium ammonium phosphate, which has been recovered from a treatment process for organic waste and/or organic waste water treatment, to a biological treatment step comprising an anaerobic treatment step and/or an aerobic treatment step to utilize the recovered magnesium ammonium phosphate as an inorganic nutrient source.

[2] The method for utilizing recovered magnesium ammonium phosphate according to claim 1, characterized by utilizing the recovered magnesium ammonium phosphate as particles having a particle size of 0.5 mm or less, and/or with a pH of a liquid, to which magnesium ammonium phosphate is added, being 10 or lower.

[3] The method for utilizing recovered magnesium ammonium phosphate according to claim 1 or 2, characterized in that the biological treatment step is the anaerobic treatment step utilizing an acid fermentation tank, and the recovered magnesium ammonium phosphate is added to the acid fermentation tank.

[4] The method for utilizing recovered magnesium ammonium phosphate according to any one of claims 1 to 3, characterized in that the treatment step for organic waste and/or organic waste water treatment is a biological treatment step comprising an anaerobic treatment step and/or an aerobic treatment step, and the magnesium

ammonium phosphate is recovered from treated water of the biological treatment step comprising the anaerobic treatment step and/or the aerobic treatment step.

[5] The method for utilizing recovered magnesium ammonium phosphate according to any one of claims 1 to 3, characterized in that the treatment step for organic waste and/or organic waste water treatment is a biological treatment step comprising an anaerobic treatment step and/or an aerobic treatment step, and the magnesium ammonium phosphate is utilized by being recovered from treated water of the biological treatment step comprising the anaerobic treatment step and/or the aerobic treatment step, and by being recirculated to the same anaerobic treatment step and/or the same aerobic treatment step of the biological treatment step.

[6] A treatment apparatus utilizing recovered magnesium ammonium phosphate, characterized in that the recovered magnesium ammonium phosphate, which has been recovered from a treatment process for organic waste and/or organic waste water treatment, is added, as an inorganic nutrient source, to a biological treatment apparatus having an anaerobic treatment tank and/or an aerobic treatment tank.

[7] The treatment apparatus according to claim 6, characterized in that the biological treatment apparatus is equipped with an acid fermentation tank, and the recovered magnesium ammonium phosphate is added to the acid fermentation tank.

[8] A biological treatment apparatus for an organic waste

and/or organic waste water which utilizes recovered magnesium ammonium phosphate, comprising an anaerobic treatment tank and/or an aerobic treatment tank, a magnesium ammonium phosphate formation tank for accepting
5 treated water discharged from the treatment tank to form magnesium ammonium phosphate, and piping for circulating the magnesium ammonium phosphate to the anaerobic treatment tank and/or the aerobic treatment tank.

[9] The biological treatment apparatus according to
10 claim 8, characterized in that an acid fermentation tank is further provided upstream of the anaerobic treatment tank and/or the aerobic treatment tank, and the piping is disposed so as to introduce the magnesium ammonium phosphate from the magnesium ammonium phosphate formation
15 tank into the acid fermentation tank.

[10] The biological treatment apparatus according to claim 8 or 9, characterized in that the magnesium ammonium phosphate formation tank is further provided with a means for adding a chemical containing magnesium, ammonium and/or
20 phosphorus and/or a pH adjusting means.